

Appendix Test Data for BT(BLE) (Conducted Measurement)

Product Name: Bluetooth Adapter

Trade Mark: INSTALLBAY

Test Model: IBBTR18

FCC ID: 2AHL8-IBBTR18

Environmental Conditions

Temperature:	25.5°C
Relative Humidity:	55%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

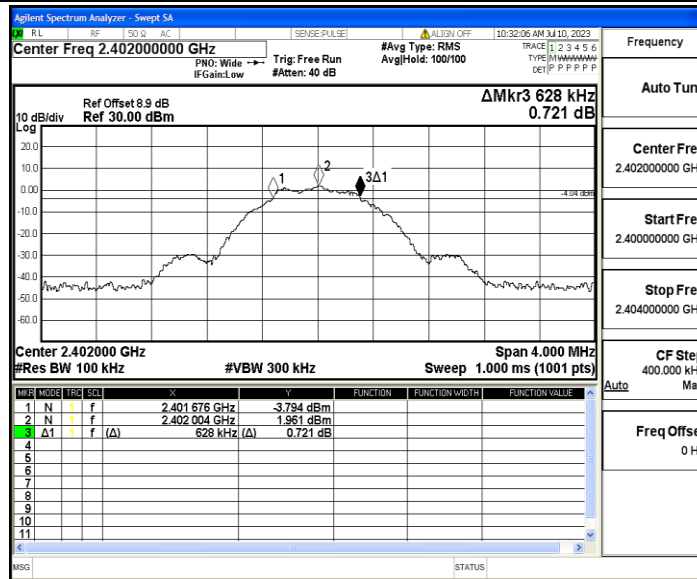
Appendix A: DTS Bandwidth

Test Result

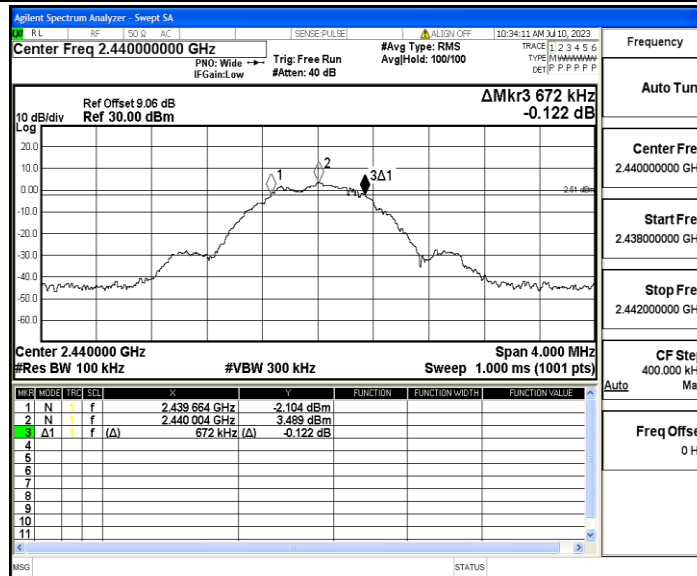
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.628	2401.676	2402.304	0.5	PASS
		2440	0.672	2439.664	2440.336	0.5	PASS
		2480	0.644	2479.672	2480.316	0.5	PASS

Test Graphs

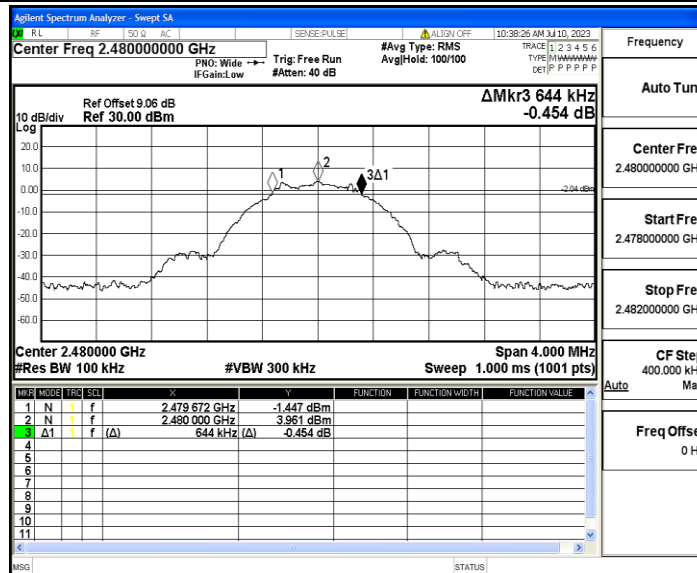
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



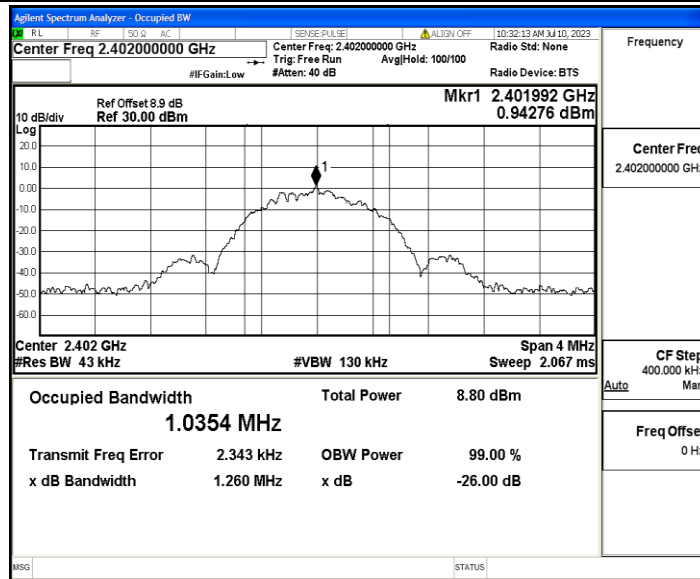
Appendix B: Occupied Channel Bandwidth

Test Result

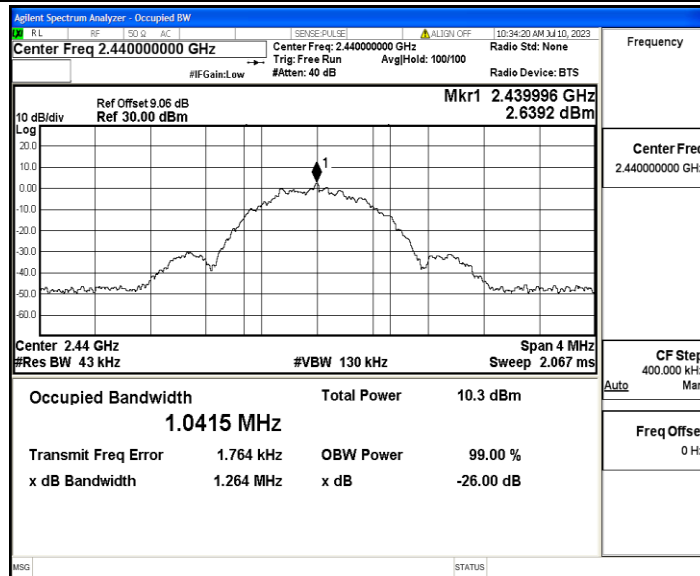
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0354	2401.4846	2402.5200	---	---
		2440	1.0415	2439.4810	2440.5225	---	---
		2480	1.0350	2479.4828	2480.5178	---	---

Test Graphs

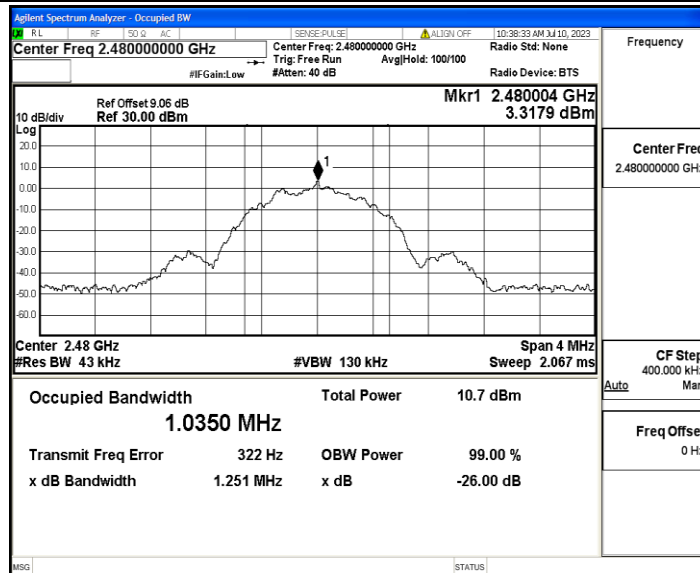
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

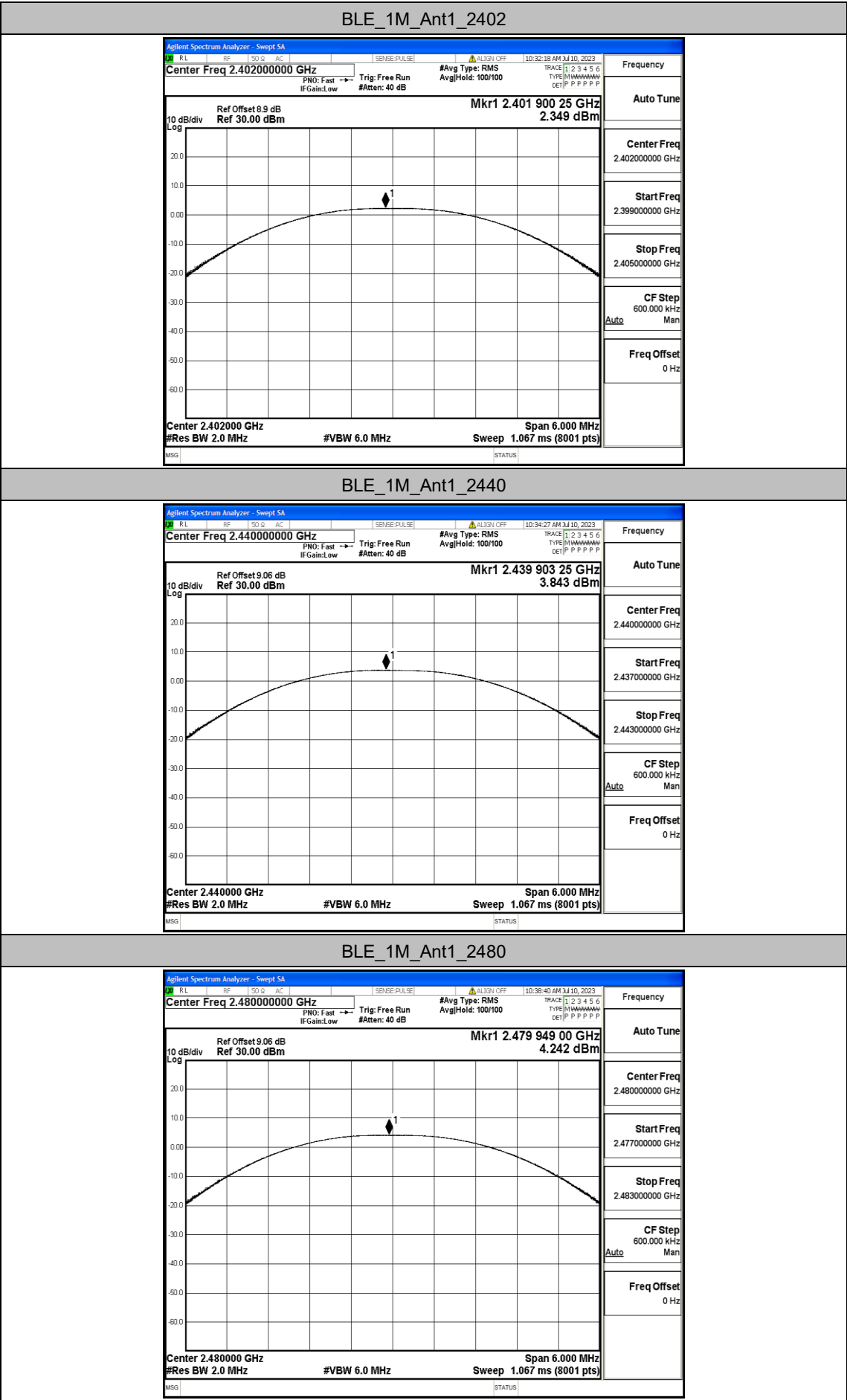


Appendix C: Maximum Peak conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	2.35	≤30	PASS
		2440	3.84	≤30	PASS
		2480	4.24	≤30	PASS

Test Graphs



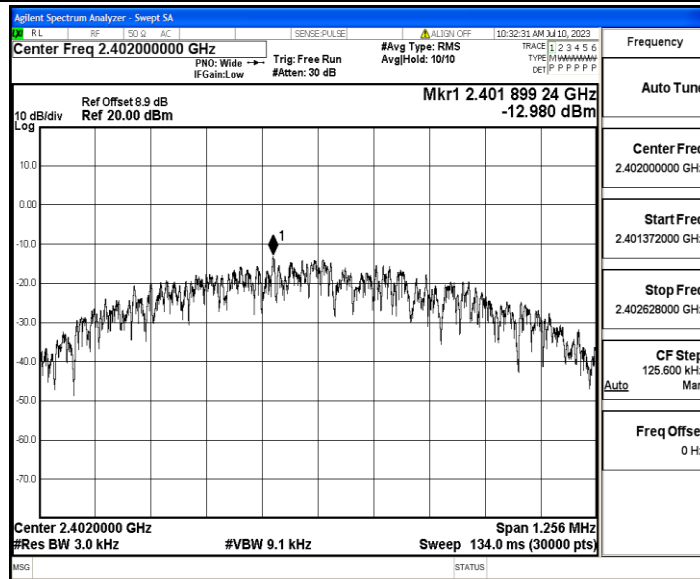
Appendix D: Maximum power spectral density

Test Result

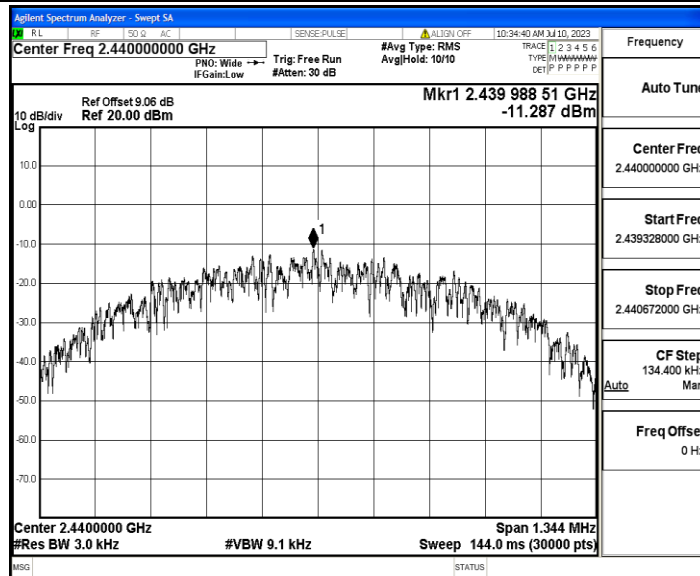
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-12.98	≤8.00	PASS
		2440	-11.29	≤8.00	PASS
		2480	-9.44	≤8.00	PASS

Test Graphs

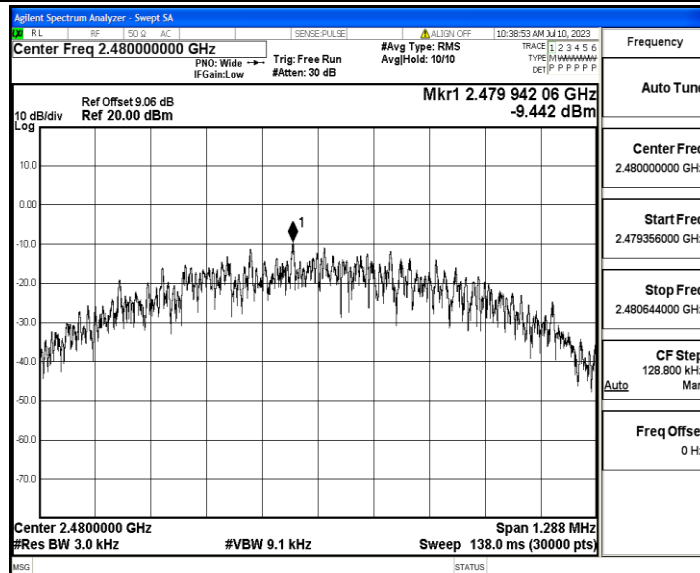
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

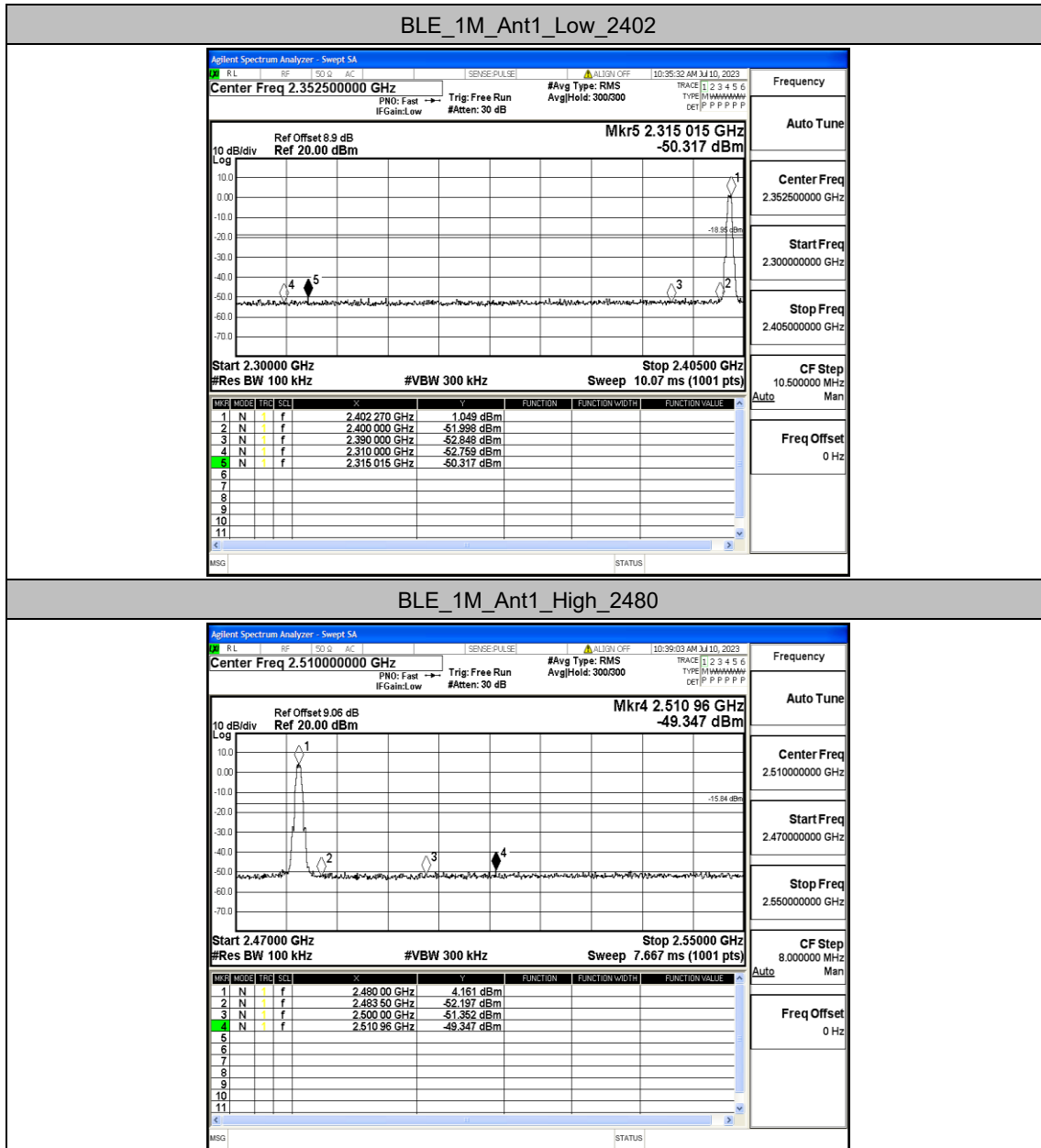


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	1.05	-50.32	≤-18.95	PASS
		High	2480	4.16	-49.35	≤-15.84	PASS

Test Graphs



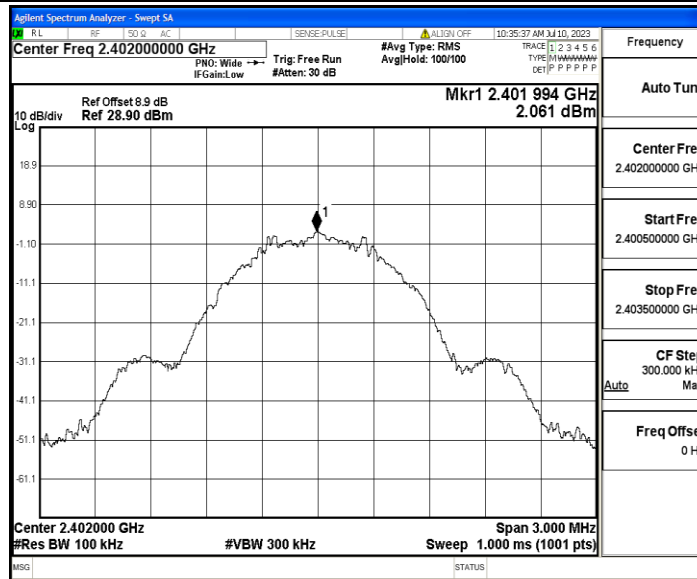
Appendix F: Conducted Spurious Emission

Test Result

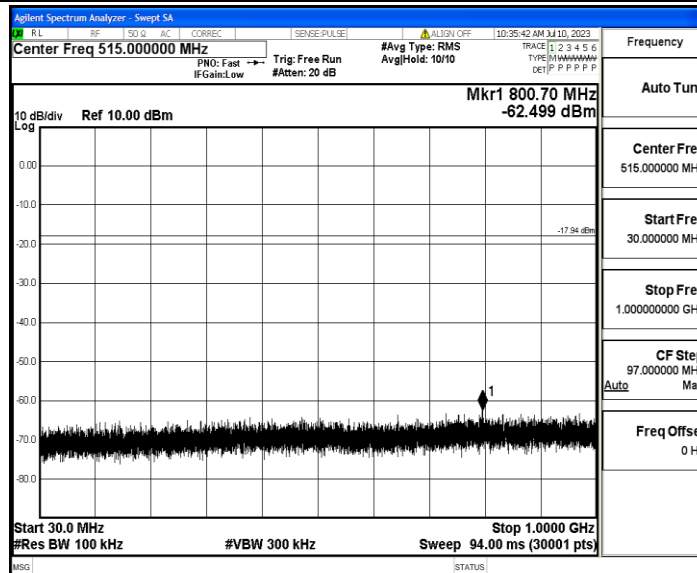
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	2.06	2.06	---	PASS
			30~1000	2.06	-62.5	≤-17.94	PASS
			1000~26500	2.06	-41.42	≤-17.94	PASS
		2440	Reference	2.65	2.65	---	PASS
			30~1000	2.65	-61.63	≤-17.35	PASS
			1000~26500	2.65	-46.94	≤-17.35	PASS
		2480	Reference	4.04	4.04	---	PASS
			30~1000	4.04	-63.12	≤-15.96	PASS
			1000~26500	4.04	-50.26	≤-15.96	PASS

Test Graphs

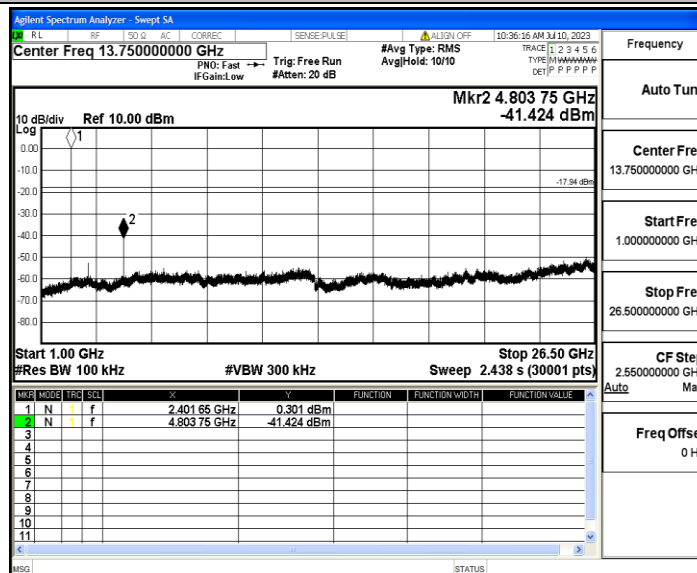
BLE_1M_Ant1_2402_0~Reference



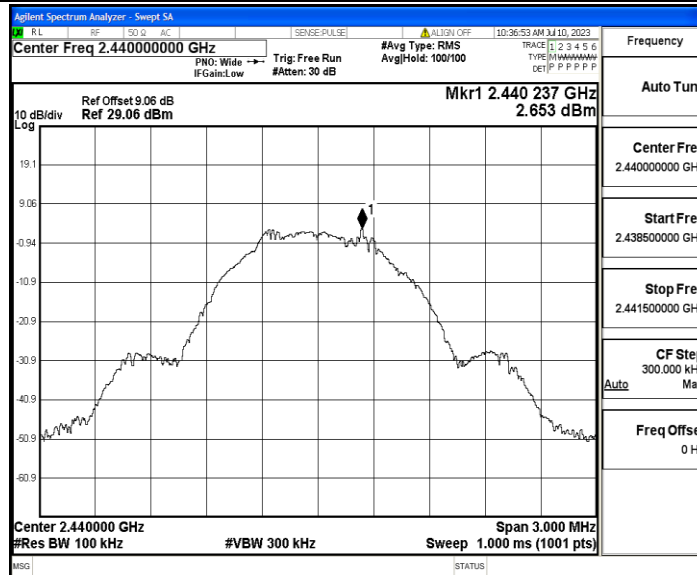
BLE_1M_Ant1_2402_30~1000



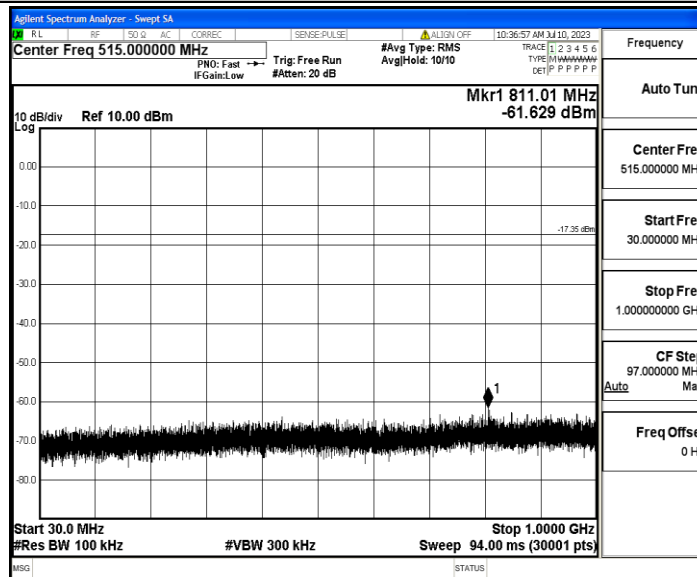
BLE_1M_Ant1_2402_1000~26500



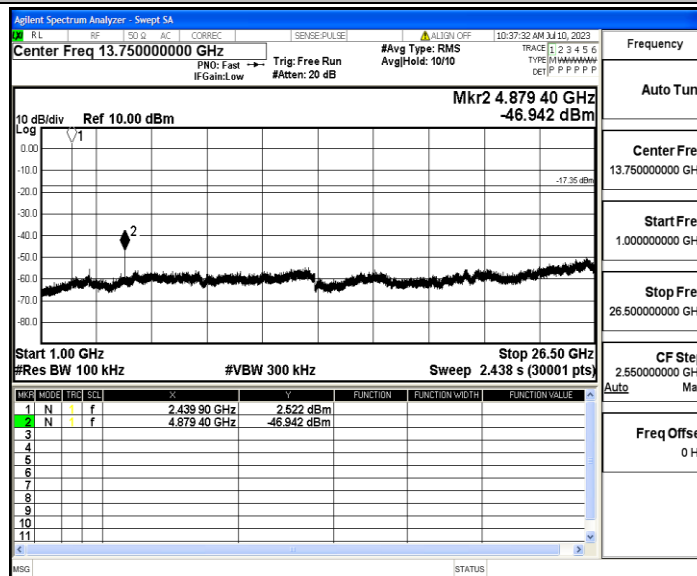
BLE_1M_Ant1_2440_0~Reference



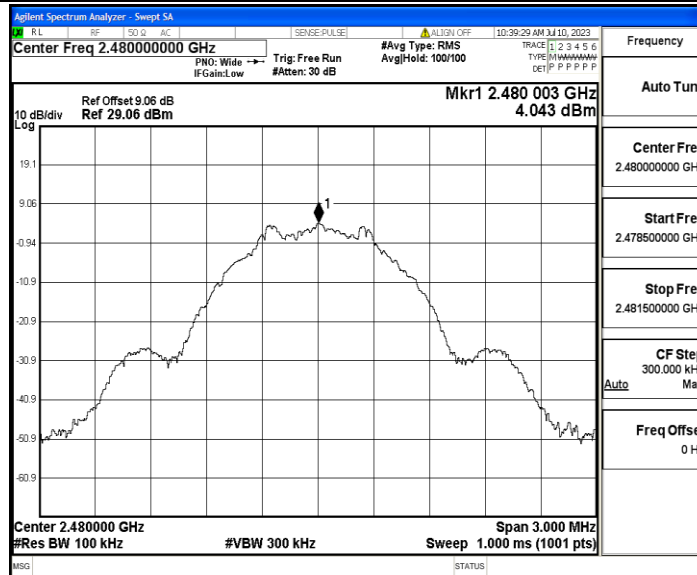
BLE_1M_Ant1_2440_30~1000



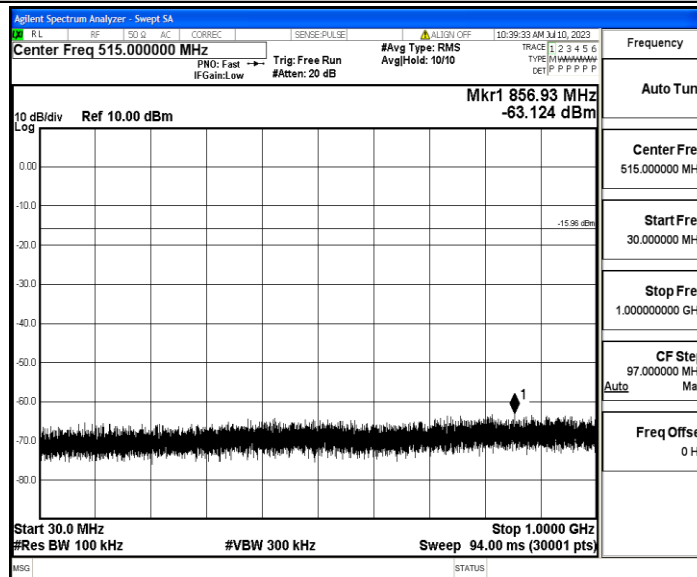
BLE_1M_Ant1_2440_1000~26500



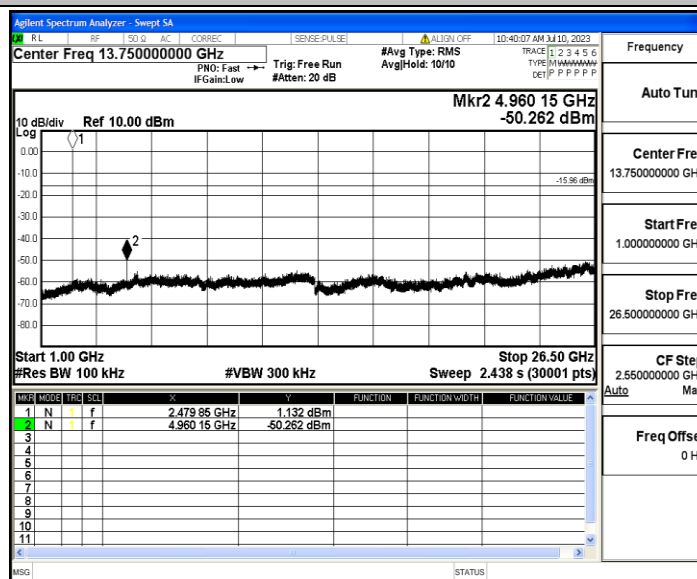
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

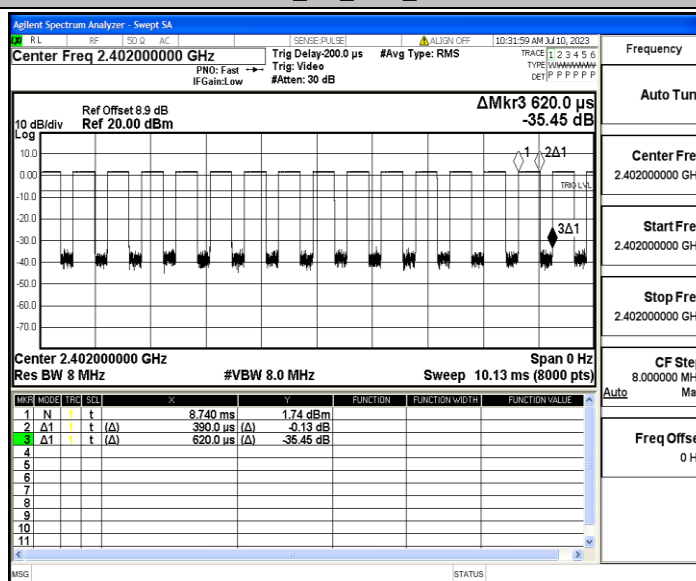


Appendix G: Duty Cycle

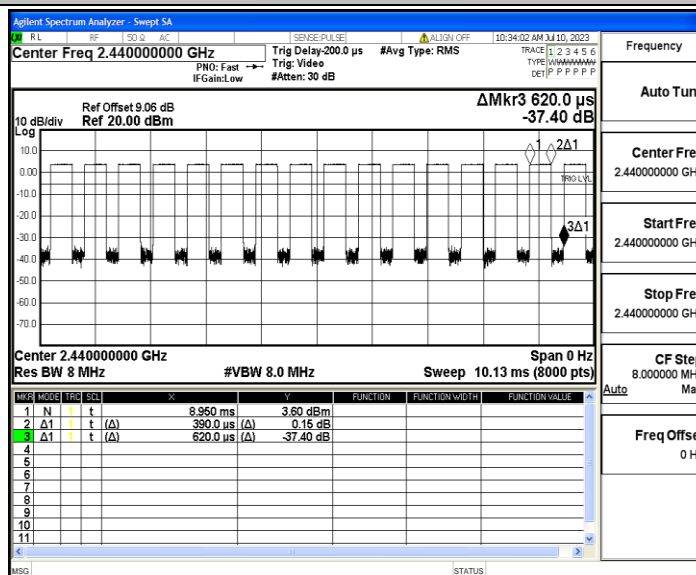
Test Result

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T[kHz]
BLE_1M	Ant1	2402	0.39	0.62	62.90	2.56
		2440	0.39	0.62	62.90	2.56
		2480	0.39	0.62	62.90	2.56

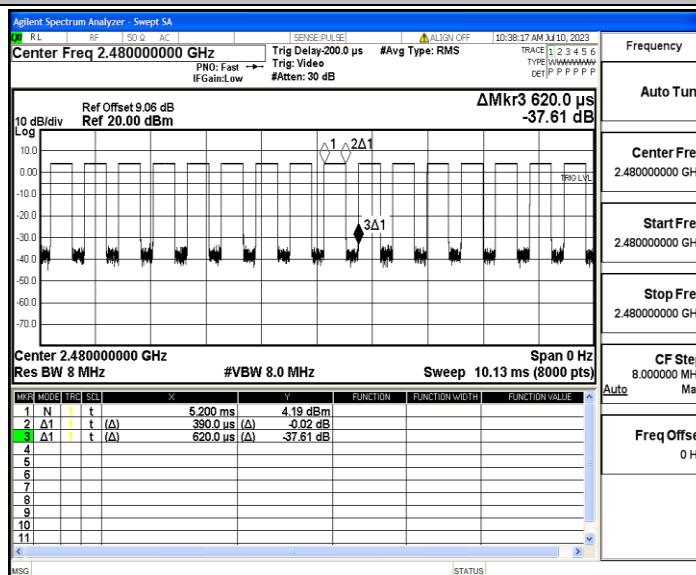
BLE	1M	Ant1	2402
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BLE 1M Ant1 2440



BLE 1M Ant1 2480



Appendix H: Emissions in Restricted Bands

Test Result

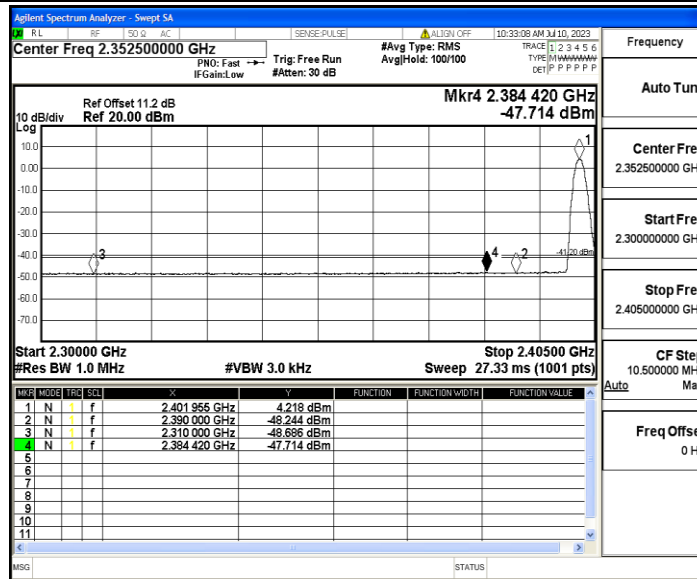
TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-48.69	≤-41.20	PASS
				AV	2384.420	-47.71	≤-41.20	PASS
				AV	2390.000	-48.24	≤-41.20	PASS
				Peak	2310.000	-42.24	≤-21.20	PASS
				Peak	2314.910	-38.56	≤-21.20	PASS
				Peak	2390.000	-40.84	≤-21.20	PASS
		High	2480	AV	2483.500	-46.22	≤-41.20	PASS
				AV	2483.520	-46.21	≤-41.20	PASS
				AV	2500.000	-47.75	≤-41.20	PASS
				Peak	2483.500	-40.57	≤-21.20	PASS
				Peak	2483.840	-37.65	≤-21.20	PASS
				Peak	2500.000	-41.05	≤-21.20	PASS

Note:

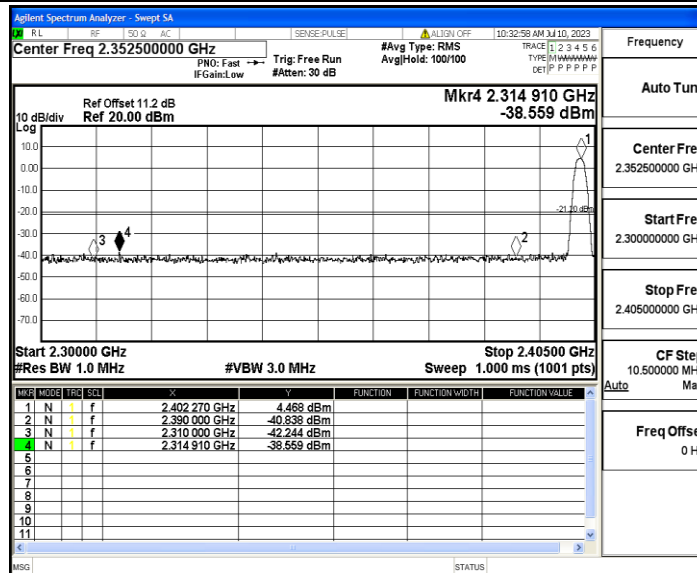
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

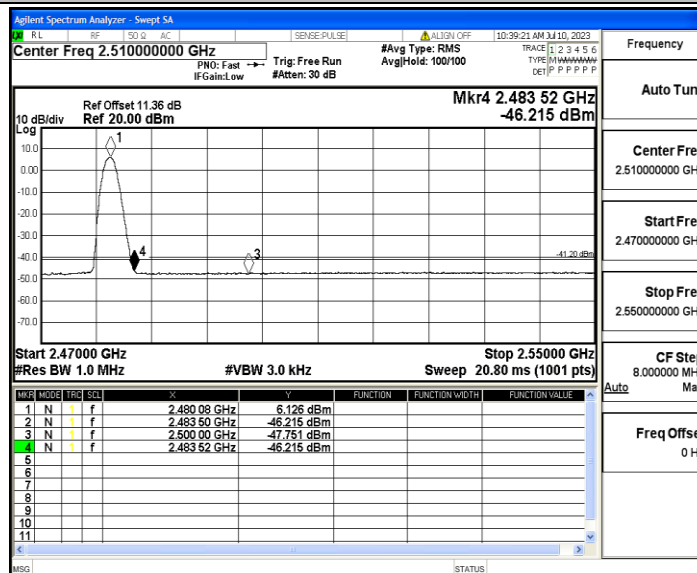
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

